Amendments to the Claims

Please amend claim 28 as indicated in the listing of claims.

Please cancel claim 29 without prejudice or disclaimer.

Please add new claims 30-35.

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A method for forming fine particles of a substance, the method including the steps of:

(i) providing an aqueous, non-gaseous fluid containing the substance;

(ii) providing a dense gas including (a) an antisolvent and (b) a modifying agent which modifies the polarity of the antisolvent ;

(iii) contacting the aqueous, non-gaseous fluid with the dense gas to expand the fluid and thereby form the fine particles;

wherein the fine particles are formed upon contacting the aqueous, non-gaseous fluid and the dense gas.

2. (Original) A method according to claim 1 wherein the anti-solvent does not significantly alter the pH of the non-gaseous fluid.

3. (Original) A method according to claim 2 in which the substance is pH-sensitive.

4. (Original) A method according to claim 2 in which the substance is biologically active.

5. (Original) A method according to claim 4 in which the modifying agent both modifies the polarity of the anti-solvent and acts as an extractant for the non-gaseous fluid.

6. (Original) A method according to claim 2 in which the anti-solvent is selected from the group consisting of a C_{1-4} alkane gas, a C_{2-4} alkene gas, a C_{2-4} alkyne gas, refrigerant RF134a, or two or more thereof.

7. (Original) A method according to claim 6 in which the anti-solvent is ethane.

8. (Original) A method according to claim 6 in which the modifying agent is selected from the group consisting of C_{1-6} alkanols, C_{1-6} thiols and C_{1-6} amines.

9. (Original) A method according to claim 8 in which the modifying agent is ethanol.

10. (Original) A method according to claim 9 in which the non-gaseous fluid is an aqueous solution and sufficient modifying agent is used to extract substantially all of the non-gaseous fluid to facilitate precipitation of the substance.

11. (Original) A method according to claim 1 in which the anti-solvent and modifying agent are maintained as a single phase.

12. (Original) A method according to claim 11 in which the non-gaseous fluid containing the substance and the dense gas are maintained as a single phase.

13. (Previously presented) A method according to claim 11 in which the single phase is maintained by either or both by adjustment of the temperature and pressure of the dense gas and by controlling the relative flow rates of each prior to expansion of the fluid.

14. (Original) A method according to claim 1 in which the dense gas is between 5°C and 40°C and at a pressure of between 5 to 150 bar.

15. (Original) A method according to claim 1 in which the substance is selected from the group of proteins, nucleic acids, liposomes, lipids (including phospholipids), water soluble polymers, controlled-delivery coatings, surfactants and phytosterols, whether natural or synthetic.

16. (Original) A method according to claim 1 in which about 50% of the particles formed are between 625 and 10,000 nanometers across.

17. (Original) A method according to claim 1 in which over 50% of the particles formed are less than 10,000 nanometers across.

18. (Original) A method according to claim 1 in which over 50% of the particles formed are smaller than 6,500 nanometers.

19. (Original) A method according to claim 1 in which the anti-solvent and modifying agent are combined before being contacted with the non-gaseous fluid.

20. (Original) A method according to claim 12 in which the concentration of the substance in the non-gaseous fluid is adjusted to maintain a single phase between the non-gaseous fluid/substance and the anti-solvent/modifying agent.

Claims 21-27 (Canceled).

28. (Currently amended) A method ~~according to claim 1 wherein~~ for forming fine particles of a substance, the method including the steps of:

(i) providing an aqueous, non-gaseous fluid containing the substance;

(ii) providing a dense gas including (a) an antisolvent and (b) a modifying agent which modifies the polarity of the antisolvent;

(iii) contacting the aqueous, non-gaseous fluid with the dense gas to expand the fluid and thereby form the fine particles;

wherein the fine particles are formed upon contacting the aqueous, non-gaseous fluid and the dense gas; and wherein the fine particles flow with the dense gas from a first vessel in which the particles are formed to a second collection vessel~~, from which the particles are collected~~ having an inlet and an outlet disposed above the inlet, in which the fine particles and dense fluid pass through the inlet and the flow of dense fluid through the outlet is adjusted to maximize the proportion of fine particles collectable from the second collection vessel.

29. (Canceled).

30. (New) A method for forming fine particles of a substance, the method including the steps of:

(i) providing a solution of the substance in water;

(ii) providing a dense gas including (a) an antisolvent and (b) a modifying agent which modifies the polarity of the antisolvent;

(iii) contacting the solution with the dense gas to expand the fluid and thereby form the fine particles;

wherein the fine particles are formed upon contacting the solution and the dense gas.

31. (New) A method according to claim 30 wherein the substance is biologically active.

32. (New) A method according to claim 30 in which the anti-solvent is selected from the groups consisting of a C_{1-4} alkane gas, a C_{2-4} alkene gas, a C_{2-4} alkyne gas, refrigerant RF134a, or two or more thereof.

33. (New) A method according to claim 32 in which the modifying agent is selected from the group consisting of C_{1-6} alkanols, C_{1-6} thiols and C_{1-6} amines.

34. (New) A method according to claim 30 in which about 50% of the particles formed are between 625 and 10,000 nanometers across.

35. (New) A method according to claim 30 in which over 50% of the particles formed are less than 10,000 nanometers across.